

# Horticulture, hunting, and fishing for survival or leisure : view point in 1715 by Louis Liger, a French non-academic agriculturist

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## Keywords

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## Summary

In the course of collection of corpus for botanical history and/or science history, the author visited an open book market in Paris and obtained a book written by Louis Liger (1658-1717), a French non-academic agriculturist, which was published in 1715, exactly 300 years ago (Liger, 1715). This book written in French entitled “*Le menage des champs et de la ville, ou le nouveau jardinier François accommode au goust du temps*” practically tells us how to maintain the gardens and the city of 18th century in France. In the present article, the author discuss the view that this book and other books written by Liger guiding us into self-gardening, hunting and fishing as leisure, could be examples of qualitative measures scaling the economical preparedness or wealth in French society in early 18th century, thus, driving ordinary people into the semi-agricultural activities in countryside for fun, apart from its significance as the means for human survival.

## 1. Introduction

Previously, the author has reported the progress in collaboration between a group from the University of Kitakyushu and a group from Université Paris Diderot (Université de Paris 7) on the survey over the corpus in the area of history of sciences (especially, of botanical science) in France, based on the literatures (mostly books and Ph. D theses) originated from the former Université de Paris, which has long been recognized as Sorbonne (Kawano and Bouteau, 2007; Kawano et al., 2008; Bouteau et al., 2013).



Fig 1. Book market at Parc Georges Brassens in 15<sup>th</sup> arrondissement, near Paris Expo Porte de Versailles, in Paris. (Top) Day of market around the nearest metro station, Convention. (Middle) Book market viewed from the park. (Bottom) Weekend book market with serious book lovers.

We have established *Centre Franco-Japonais d'Histoire des Science* (CFJHS) basing in Paris and Kitakyushu in 2007, as the platform for such activities aiming at preservation, classification, digitalization, translation and re-evaluation of the classical biological literatures from Sorbonne-related libraries, by making uses of the collections kept in both

Japan (Kitakyushu) and France (Paris). Opening of the official CFJHS web site, publication of a online journal “Bulletin du Centre Franco-Japonais d’Histoire des Sciences (Kitakyushu-Paris)” (ISSN: 1882-3548), and exchange of information among the active members, and further re-collections of key original literatures related to science history (from other sources) are included in our current activities on behalf of CFJHS (Kawano and Bouteau, 2007).

In the course of further collection of corpus for botanical history and/or science history, the author visited an open book market in Paris (Fig. 1), last year and obtained a book written by Louis Liger (1658-1717), a French non-academic agriculturist, which was published in 1715, exactly 300 years ago (Liger, 1715). This book written in French entitled “*Le menage des champs et de la ville, ou le nouveau jardinier François accommode au goust du temps*” practically tells us how to maintain the gardens and the city of 18<sup>th</sup> century in France. In the present study, principle ideas behind the book at the time of publication by which how the agriculture and other food producing and/or food collecting activities are viewed, are discussed.

## **2. Production and/or collection of food for survival or joy**

In 1997, British Prime Minister (Tony Blair, on duty between 1997 and 2007) has delivered the first official apology for the incident known as Irish potato famine in the 19th century on behalf of the British government (The Independent, Monday 02, June, 1997). As the symbolic incident in Ireland tells us, historically, humans have long been suffered by the occasional loss of crops due to the outbreak of plant diseases or metrological disasters.

It is trivial that the activities for food production and collection such as agriculture, hunting and fishing have long been necessary for daily survival of human being. However, we have empirically learned that primary activities of food production can be replaced by leisure as economy developed. Petty-Clark’s law (formally known as Petty’s law) suggests that the proportion of primary industries declines as the economy of a country develops, in turn, those of secondary and tertiary industries must increase (Tsuchiya, 1993). Today in Japan, the population of agricultural, fishery and forestry workers is about 3.51 % of total working population in the nation. In the past six decades, the agricultural force in Japan has been markedly weaken and thinned, partly due to declining birth rates in the nation and decrease in new employment in

the field. This eventually caused highly advanced aging of the agricultural population in Japan. On the other hand, certain size of population may frequently commit and enjoy growing vegetables and other crops for joy but not for survival, although, these activities could be hardly covered via occupational census (Kawano et al., 2014).

The case of the changes in hunting population in European countries is an example which could be clearly traced based on the official records. Since the hunting has played a crucial role in the history of food supply, one may view that the trend of hunting population obeys the Petty-Clark's law, thus it must show a decrease as economy of a country develops. However, hunting is currently viewed as a leisure activity, and as a consequence, the proportion of hunters across European countries actually increases when the per capita GDP attains the level between 5,000 and 15,000 USD (Kawata, 2011). Aforementioned study further pointed that two major trends are likely detected once the per capita GDP crosses the border of 15,000 USD: the number of hunters continues to increase in some countries but decreases in some other countries. Finally, the number of hunters in a country stabilizes when its per capita GDP reaches around 25,000 to 30,000 USD. This type of changes in agricultural working force is not well documented while changes in hunters could be readily traced in most countries based on the records of licensed gun uses or of registration to the hunting field entrance (Kawata, 2011).

Here, the author propounds that there would be two major hidden increases in the population with agriculturally related activities, namely, in the areas of agriculture as leisure and as high-tech industry. The author is currently proposing two models in which agriculture can be converted to higher industries, *viz.* as leisure and as high-tech industry. Activities related to recent plant production factory movements in Japan may fulfil the cases in latter model (Kawano, 2014).

Kawata's economic view explaining how the trends of hunting population disobey the Petty-Clark's law is highly interesting. As Kawata succeeded in geographical comparison describing the relationship between the trends in the changes in the hunting population and the per capita GDP in each country in Europe. Apart from above horizontal (geographical) scope which allowed comparison of the phenomena of interest based on the per capita GDP in dollar, the present US currency; it was tempting to expand our scope in vertical (historical) dimension, thus we have to have alternative clues to the point of discussion other than comparison based on per capita GDP in dollar.

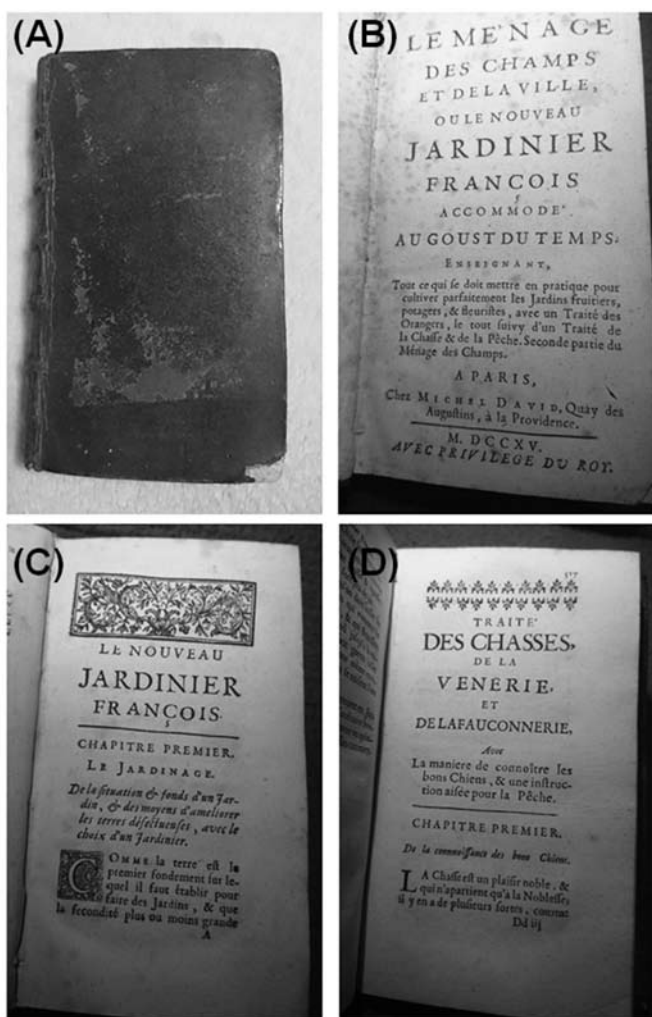


Fig. 2. A book authored by Luis Liger entitled “Le me’nage des champs et de la ville, ou le nouveau jardinier François accommode au goust du temps”, published in 1715. (A) Cover of the book. (B) Opening page of the book. Year published was marked as M. DCCXV (1715). (C) The first page of the main text (pp. 1-316). (D) The first page of the annexed book bound together with main text, which is entitled “Traite des chasses, de la Venerie, et de la fouconnerie, avec la miniere de connoître les bons chiens, & une instruction aisée pour la Pêche” (pp. 317-447).

### 3. Origin of gardening activities.

Among the people today, gardening is considered as one of activities as leisure, surely not for merely the purpose of food production for survival. History of gardening must be traced back through the history of horticulture. As a Latin word “hortus” stands for garden, horticulture literally stands for culturing in the gardens. As one of

agricultural form, primitive horticulture has been developed through historical efforts spanning some thousand years (Fullagar et al., 2006). Accordingly, prototypic botanical gardens can be found in the records in the ancient Egypt, the period (BC 1479 - BC 1425) governed by Thutmose III (Beaux, 1990).

Apart from food production, the concept of modern botanical gardens has been invented for academic purpose. In Italy, there are four old “orto botanico” (botanical garden), which are world oldest botanical gardens designed for academic purpose (Hill, 1915; Hyams and MacQuitty, 1969; Kawano, 2013), namely, one in Pisa (Orto botanico di Pisa, established in 1544), Padova (Orto botanico di Padova, 1545), Florence (Orto Botanico di Firenze, established in 1568) and Bologna (Orto Botanico dell’Università di Bologna, established in 1968).

Note that the founder of the first academic plant culturing garden, Luca Ghini (1490-1556), was not only known as a botanist but also as a medical doctor (internal medicine). It is natural to consider that the main and only purpose for maintaining the garden was to grow the living specimens (medicinal herbs) for pharmaceutical studies. Later, ornamental function was added to the *raison d’être* of botanical gardens (Hill, 1915; Hyams and MacQuitty, 1969; Kawano, 2013). For both the medicinal and ornamental purposes, a boom of establishing a number of botanical gardens has been triggered in European countries in 16<sup>th</sup> and 17<sup>th</sup> centuries, among which are mostly open for the public, as listed below: Netherlands (Leiden in 1587, Amsterdam in 1638), Switzerland (Zurich in 1560, Basel in 1589), Germany (Tuebingen in 1535 or 1663, Leipzig in 1580, Jena in 1586, Heidelberg in 1593, Freiburg in 1620, Hanova in 1666 , Berlin in 1672), United Kingdom (Oxford in 1621, Edinburgh 1670, Chelsea in 1673), France (Montpellier in 1593, Paris in 1597 and 1635), Denmark (Copenhagen in 1600), Sweden (Uppsala in 1655), and Spain (Valencia in 1567). The cases in Tuebingen are based on two distinct records in the history of botanical garden development; 1535 is the year Leonhart Fuchs (1501-1566) started culturing medicinal herbs in his private space, mostly for private research purpose, and 1663 is the year establishing the Tuebingen’s first garden designed for showcasing the botanical specimens for the public. In addition, the first academic (or medicinal) botanical garden in Japan was opened in 1684 (Present Koishikawa botanical garden in the campus of Univ. Tokyo).

#### 4. Guides towards agriculture, horticulture, hunting, and fishing not for survival but for leisure, published between 17<sup>th</sup> and 18<sup>th</sup> centuries.

Almost free accesses to botanical garden might largely influenced the concept for living with plants among the people in the big cities in Europe. This might be prototypic idea which drove the people for the gardening activity not for survival but for fun or leisure. Although no numeric parameter such as per capita GDP is available for assessing the modes of such behavioral changes among the people in the early modern and modern Europe, the records such as publication of guide books for the public may be qualitative measures of wealth in the country in the historical range of periods of interest.

Although the author is still in the middle of such historical and anthropological analyses, some of the examples proving that French speaking world in 17<sup>th</sup> and 18<sup>th</sup> centuries was already wealth enough for driving a certain number of ordinary people (not only limited to the members of top-ranked class in the society) for the activities in food production and collection such as gardening, hunting and fishing mainly for fun (with some concomitantly obtained income).

Today, we have access to the old literatures through internet, and thus, original text can be read. The book authored by La Quintinie which was published in 1695 (Fig. 3 left), is one of examples describing how-to-manage and enjoy the life in the private

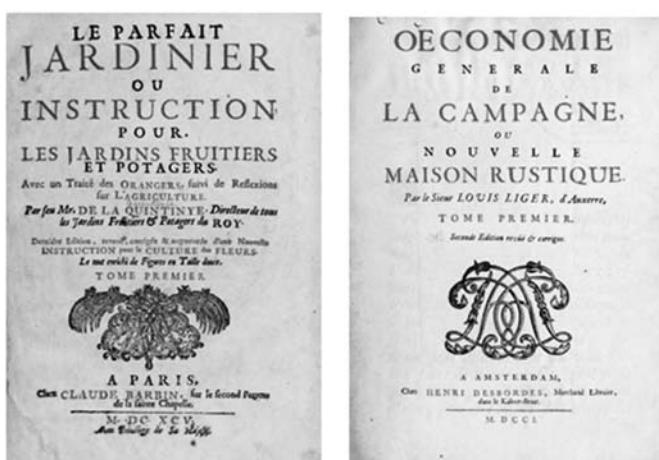


Fig. 3. Books authored by La Quintinie (1695) and Liger (1701). Images were obtained from following URL. (left) <https://archive.org/details/leparfaitjardini00laqu>, (right) <https://archive.org/details/oeconomiegenera100lige>.

gardens especially growing flowers for ornamental purpose. In 1701, Liger published a book entitled “*Oeconomie generale de la campagne; ou, Nouvelle maison rustique*” (Fig. 3 right), in which the life in French countryside apart from the noisy urban life in big cities like Paris is described and recommended.

Another book by Liger (Fig. 2) published in 1715 was designed as a guide book for self-horticulturing (upper part) and hunting and fishing (lower part). It could be propound that the book was authored by a non-academic agriculturist, suggesting that there was a certain number of potential readers in non-academic field in French speaking world in this age. This is also one of examples which measures the preparedness of French society in the early 18th century, for driving people for the food producing / collecting activities in the countryside.

## References

- Beaux, N. (1990) Le cabinet de curiosites de Thoutmosis III. Plantes et animaux du ‘jardin botanique’ de Karnak. (Orientalia Lovaniensia Analecta). Peeters Bvba, Netherland.
- Bouteau, F., El-Maarouf-Bouteau, H., and Kawano, T. (2013) La Sorbonne, une vieille dame très convoitée. *Bulletin du Centre Franco-Japonais d’Histoire des Sciences (Kitakyushu-Paris)* 7(1) : 1-8.
- Fullagar, R., Field, J., Denham, T. and Lentfer, C. (2006) Early and mid Holocene tool-use and processing of taro (*Colocasia esculenta*), yam (*Dioscorea* sp.) and other plants at Kuk Swamp in the higlands of Papua New Guinea. *J. Archaeol. Sci.* 33: 595–614.
- Hill, A. W. (1915) The History and Functions of Botanic Gardens. *Annals of the Missouri Botanical Garden* 2 (1/2): 185–240.
- Hyams, E. and MacQuitty, W. (1969) Great botanical gardens of the world. London: Bloomsbury Books. ISBN 0-906223-73-3.
- Kawano, T. (2013) History of horticulture (1): Italian botanical gardens in the 16th century as the roots of modern horticulture. *Bulletin du Centre Franco-Japonais d’Histoire des Sciences (Kitakyushu-Paris)* 7(1): 43-51.
- Kawano, T. (2014) Plant Pigmentation Control under LEDs: Economic Views and Technological Achievements behind the Emergence of Plant Factories. *Proceeding of Plant Factory Conference 2014*. A-12 (pp.1-5).
- Kawano, T. and Bouteau F. (2007) Our current activities: Collection, preservation, classification, digitalization, translation and re-evaluation of the classical science literatures from Sorbonne



libraries. *Bulletin du Centre Franco-Japonais d'Histoire des Sciences (Kitakyushu-Paris)* 1(1) : 3-9.

Kawano, T., Yokawa, K., Hiramatsu, T., Rona, J.-P. and Bouteau, F. (2008) Mining and revitalization of classical literatures on botanical science derived from Sorbonne libraries through collaboration between Université Paris Diderot and The University of Kitakyushu. *CIEE Journal- The University of Kitakyushu* 6: 13-21.

Kawata, Y. (2011) Economic growth and trend changes in wildlife hunting. *Acta Agriculturae Slovenica* 97: 115-123.

La Quintinie, J. de (1695) *Nouvelle instruction pour la culture des fleurs*. C. Barbin, Paris. One of Books digitized by the Internet Archive for the University of Massachusetts Libraries. (<https://archive.org/details/leparfaitjardini00laqu>)

Liger, L. (1701) *Oeconomie generale de la campagne; ou, Nouvelle maison rustique*. H. Desbordes, Amsterdam. Electric version (PDF) is available at Thomas Fisher Rare Book Library (<https://archive.org/details/oeconomiegeneral00lige>).

Liger, L. (1715) *Le me'nage des champs et de la ville, ou le nouveau jardinier François accommode au goust du temps*. Chez Michel David, Paris.

Tsuchiya, K. (1993) *Agricultural Economy* (4<sup>th</sup> ed.). Toyo Keizai Shinpo Sha, Tokyo, Japan. (*text in Japanese*)